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A NEW ASELLOTA (STENETRIIDAE) AND TWO, ONE NEW, ANTHURIDEA (ANTHURIDAE) FROM BERMUDA (CRUSTACEA, ISOPODA)

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Abstract.—Three species are described from Bermuda. They are all from a single dredge haul from 90 m deep off the south shore of the island. One is placed in *Stenobermuda*, a new genus of Stenetriidae (Asellota), and the new species is the first hermaphrodite described in the family. The other two species are in Anthuridae (Anthuridea). One is a new species in the new genus *Anthomuda*, and the other is *Apanthura magnifica* Menzies and Frankenberg. The range of *A. magnifica* is thus extended to Bermuda from the southeastern coast of the United States.

Three species, two new, of isopod crustaceans were collected during dredging operations by the "North Star" two miles off Castle Roads on the south shore of Bermuda. The specimens were obtained from a bottom of sand and rocks at 90 m on 30 October 1976. One, an Asellota, is in a new genus of the family Stenetriidae. It is the first record of a hermaphrodite in that family. The other two species are in the Anthuridea in the family Anthuridae. *Apanthura magnifica* Menzies and Frankenberg (1966) is recorded for the first time from Bermuda.

Richardson (1902) described the isopods of Bermuda and they were reviewed more recently by Schultz (1969).

Stenobermuda, new genus

Description.—Eyes of few ocelli. Frontal margin of cephalon with rostrum; frontal processes short; anterolateral processes pointed. Squama present on peduncle of antenna 2. Body margins subparallel with coxal process showing somewhat from beneath edge of peraeonite I. Coxal processes on lateral edges of peraeonite IV and posterolateral edges of peraeonites VI and VII. Two free pleonal segments. Posterolateral notches in margins of pleotelson.

The type-specimen used in the description of the type-species of the genus is a hermaphrodite.

Etymology and gender.—The prefix "steno-" is from *Stenetrium* the name of the type-genus of the family. It means narrow and is combined with the name of the island where the specimen was found. The gender is feminine.

Type-species.—*Stenobermuda acutirostrata*, sp. nov.

Stenobermuda acutirostrata, new species
Figs. 1–11

Description.—Five ocelli. Rostrum elongate and acutely pointed. Frontal margin of cephalon with frontal processes short; anterolateral processes moderately long and acutely pointed. Anterolateral edges of peraeonites I–VI pointed. Coxal extensions can show from beneath lateral edges of peraeonite I. Peraeonite IV with large lateral coxal extensions. Peraeonites V and VI with large posterolateral extensions. Peraeonite VII with coxal extensions on rear border. Pleotelson about as long as peraeonites VI and VII combined; posterolateral notches well defined; posterior margin rounded and somewhat produced; light setation on lateral margins.

Antenna 1 with outer distal margin of peduncular segment projecting anteriorly about half length of second segment; 5 flagellar articles; first and apical articles very short with few aesthetascs and long setae. Sensory setae on peduncular segments. Maxilliped with 3 coupling hooks on narrow endite; distal 2 palp articles much narrower than proximal 3 articles; endite with convex outer border; apex acutely pointed.

Peraeopod I with propodus longer than wide; inner margin of manus with 6 moderately large setae and one large palmar seta; cutting edge beneath overlapping dactylus with moderately large setae on it. Dactylus with elongate unguis. Hair-like setae on margin of peraeopod I. Elongate setae on inner margin of subequal carpus and merus. Ischium and basis with few setae.

Male pleopod 1 with 4 long apical setae and other moderately long setae on lateral margins. Male pleopod 2 with spine longer than exopod projecting from near apex of exopod; endopod with elaborately structured apex.

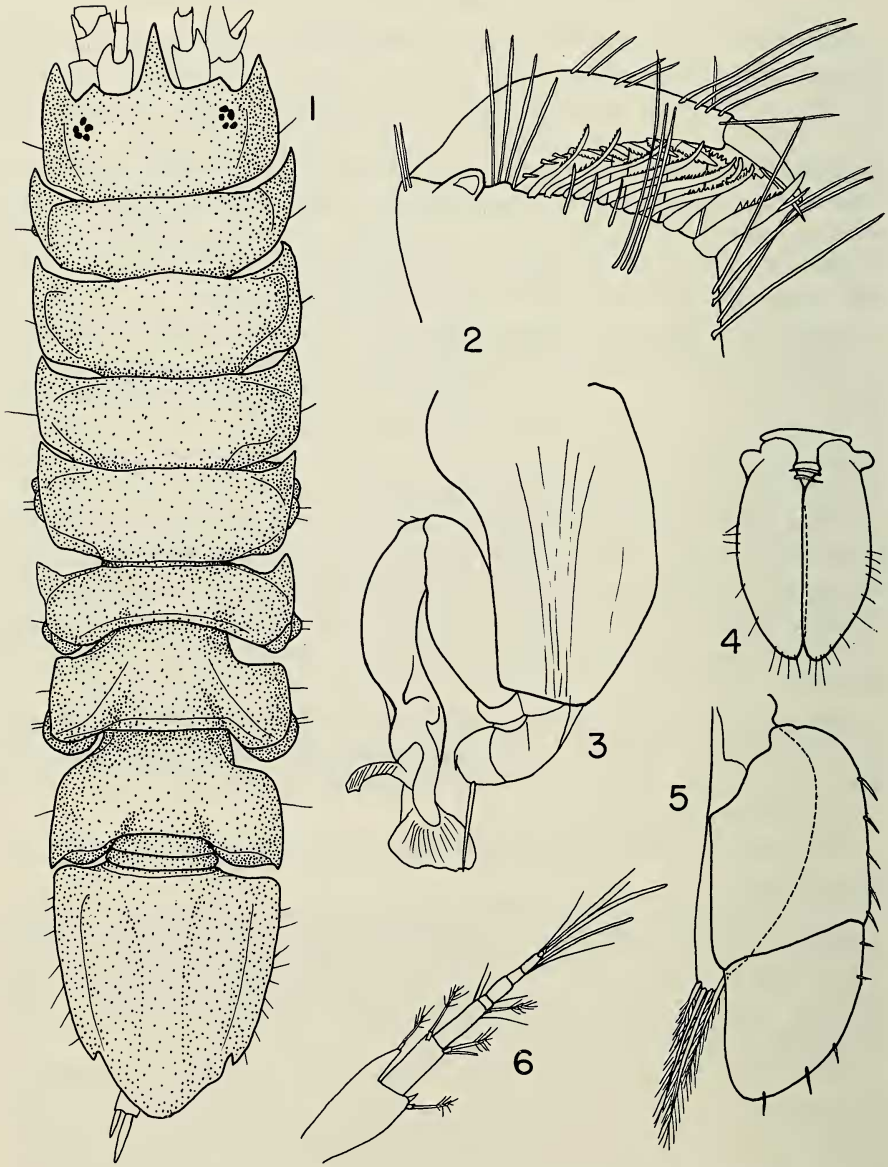
Pigmentation light if at all.

Measurements.—Holotype male (?) 4.8 mm long; allotype hermaphrodite 3.8 mm long.

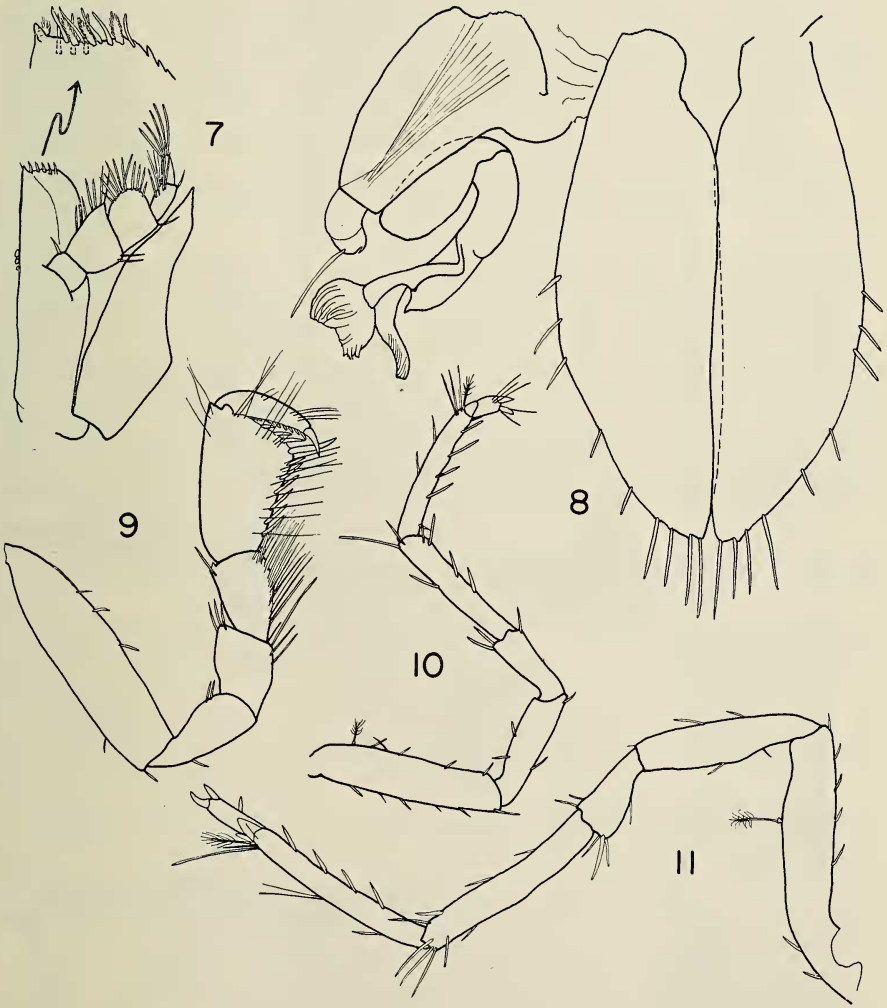
Derivation of species name.—The latin *acutus* means sharp and *rostratus* means beaked and combined they refer to the sharp rostrum on the specimen.

Disposition of types.—The type-specimens have been deposited in the National Museum of Natural History (holotype male [?] USNM 171265; allotype hermaphrodite USNM 171266).

Affinities.—The species is unique among the Stenetriidae because one specimen has both a marsupium and definite male pleopods 1 and 2 and is thus a hermaphrodite. The 4.8 mm long specimen has male pleopods 1 and 2, but no marsupium. It was not examined internally so its sex is still in doubt since it could be a non-gravid hermaphrodite. The species has no definite affinity to *Stenetrium stebbingi* Richardson (1902) also from Bermuda. The two species differ from each other in the configuration of the frontal margin of the cephalon among many other characters.



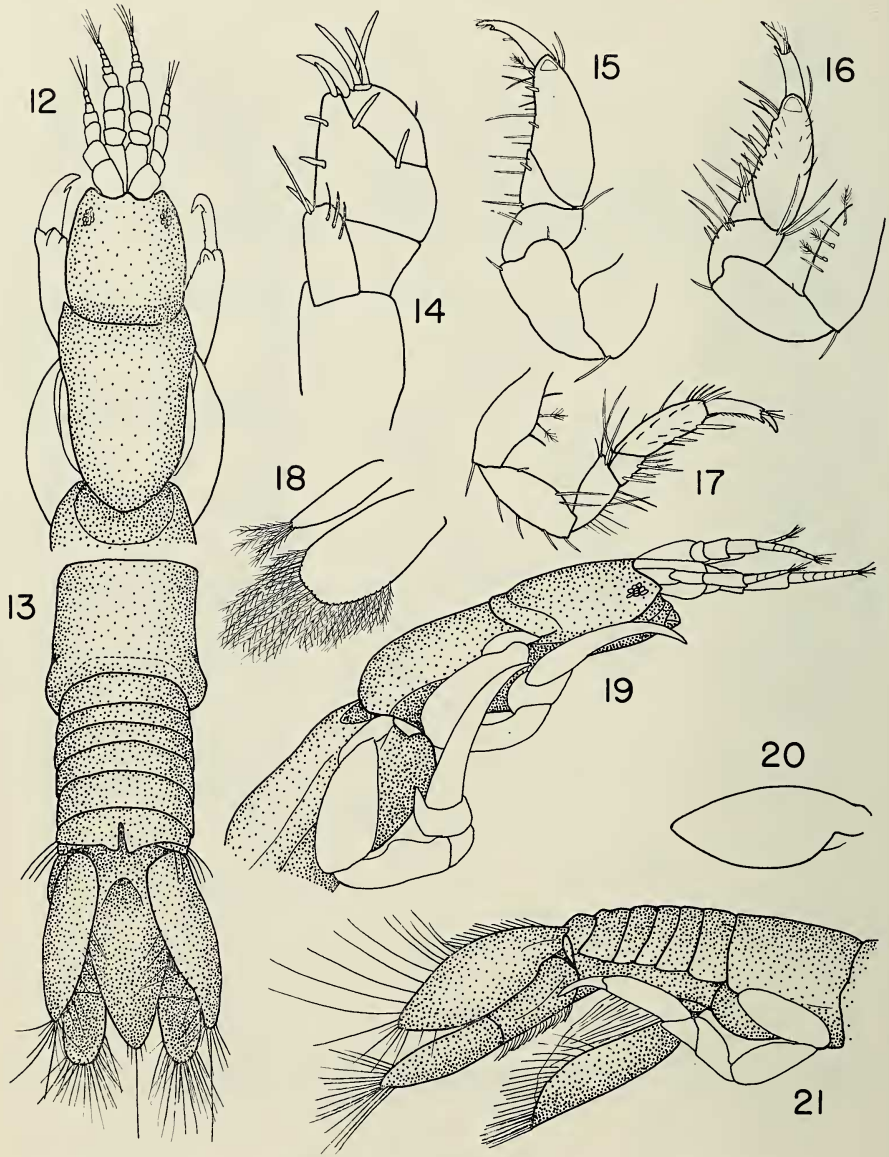
Figs. 1–6. *Stenobermuda acutirostrata*, holotype. 1, Holotype male (?) 4.8 mm long; 2, Peraeopod I; 3, Pleopod 2; 4, Pleopods 1; 5, Pleopod 3; 6, Antenna 1.



Figs. 7–11. *Stenobermuda acutirostrata.* 7, Maxilliped; 8, Pleopods 1 and 2 hermaphrodite 3.8 mm long; 9–11, Peraeopods I, II and VII respectively of male (?).

Anthomuda, new genus

Description.—(Based on females only) Eyes of several ocelli. Frontal margin of cephalon with rostrum and anterolateral processes weakly produced. Antenna with few flagellar articles. Mandibular palp with 3 articles. Apical segment of palp of maxilliped rounded and with long setae. Carpus of all peraeopods greatly or slightly underriding propodus. Peraeonite VII



Figs. 12–21. *Anthomuda stenotelson*, holotype female. 12, Anterior part of holotype female 8 mm long; 13, Posterior part; 14, Maxilliped; 15–17, Peraeopods I, II and VII respectively; 18, Operculate pleopod 1; 19, Anterior part lateral view; 20, Exopod of uropod; 21, Posterior part lateral view.

shorter than each of other 6 peraeonites. All 6 pleonal segments distinct. Pleopods 1 operculate. Telson with one statocyst. Pigmentation absent.

Etymology and gender.—The prefix "anth-" means flower and combined with the suffix "-muda" from Bermuda means roughly "flower of Bermuda." The gender is feminine.

Type-species.—*Anthomuda stenotelson*, sp. nov.

Anthomuda stenotelson, new species
Figs. 12–21

Description.—Eyed. Cephalon short with short medial and short anterolateral processes. Antenna 1 with 4 flagellar articles; antenna 2 with 6 flagellar articles. Maxilliped with apical article of palp rounded with apparently 4 long medially pointing setae; endite small with one very long apical seta. Peraeopod I not especially large and not subchelate; with carpus only slightly underriding propodus; only few stout setae even on inner edges of segments of peraeopods. Peraeopod II like I, but much thinner. Pleopods 1 operculate. Exopod of uropod pointed; telson pointed with single statocyst.

Measurements.—Holotype female 8 mm long; paratype female 8.8 mm long.

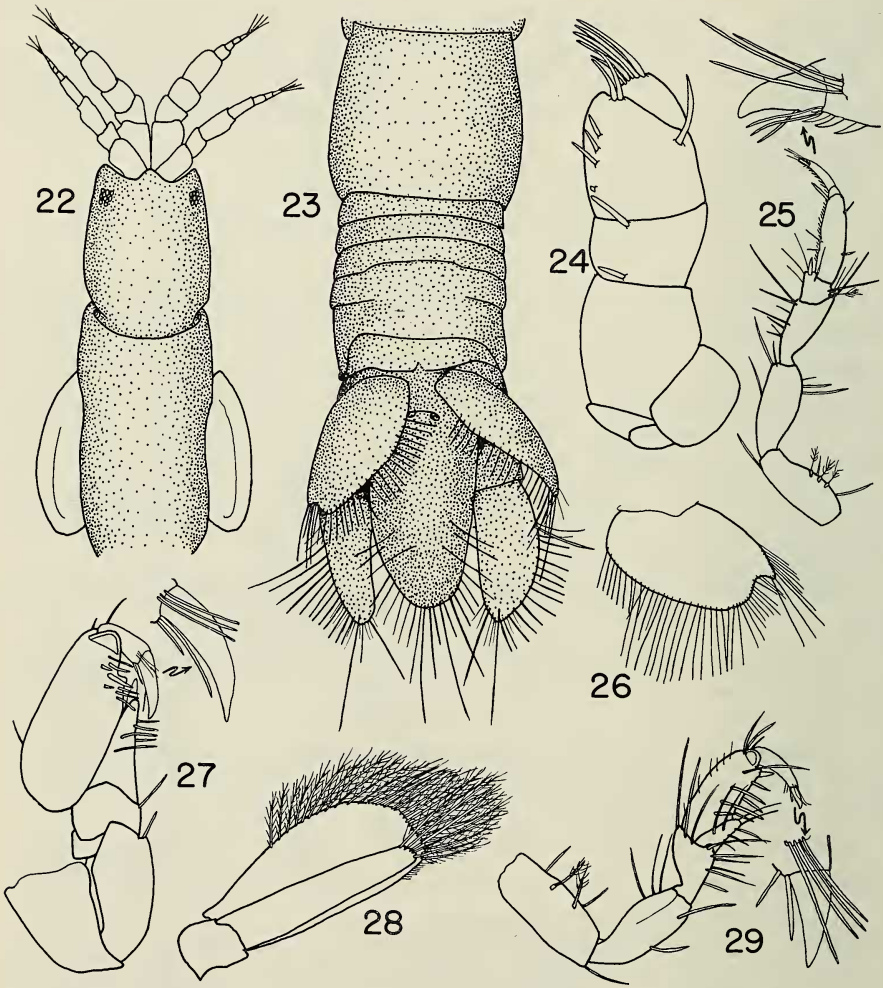
Derivation of species name.—The Greek *steno* means narrow and *telson* means limit and combined they refer to the narrow last or limiting segment of the specimen.

Disposition of types.—The type-specimens have been deposited in the National Museum of Natural History (holotype female USNM 171263; paratype female USNM 171264).

Affinities.—In Barnard's (1925) key the species would be placed in *Apanthura* Stebbing. Differences are present in the flagellar article number. In species of *Apanthura* according to Barnard antenna 1 has one or "obscurely 2–3" flagellar articles. The flagellum is "rudimentary" on antenna 2. For the new species described here there are only a few flagellar articles and they are quite distinct (Fig. 12). Peraeopod I of the new species has no stout seta at the palmar base and the unguis is not long (Fig. 15). The new species is in no way related to *Paranthura infundibulata* Richardson (1902), also from Bermuda, because among many other characters, the pleons of the two species are quite distinct.

Apanthura magnifica Menzies and Frankenberg
Figs. 22–29

Apanthura magnifica Menzies and Frankenberg, 1966:40, fig. 17A–L.—Howard and Dörjes, 1972:614.—Kruczynski and Myers, 1976:354, Fig. 1A–I, 2A–F.



Figs. 22–29. *Apanthura magnifica* Menzies and Frankenberg, female. 22, Anterior part of female 8.6 mm long; 23, Posterior part; 24, Maxilliped; 25, Peraeopod VII; 26, Exopod of uropod; 27, Peraeopod I; 28, Operculate pleopod 1; 29, Peraeopod II.

Description.—Eyed. Cephalon with short medial and short anterolateral processes. Antenna 1 with 4 flagellar articles; antenna 2 with 4 flagellar articles. Maxilliped with apical article of palp rounded and with apparently 5 long medially pointing setae; endite not seen. Peraeopod I subchelate with carpus well set beneath propodus; dactylus with large unguis. Peraeopod II much thinner than peraeopod I with carpus underriding propodus and with many long setae. Peraeopod VII much thinner than peraeopod II with

carpus only slightly underriding propodus. Pleon with dorsal parts of segments 4 and 5 fused. Pleopods 1 operculate. Exopod of uropod with process on posterior margin; telson broadly rounded with paired statocysts.

Measurements.—Female 8.6 mm long.

Disposition of specimen.—The specimen has been deposited in the National Museum of Natural History (Female USNM 171262).

Range.—The species was collected off Sapelo Island, Georgia, at depths between 17.2 and 138 m, and on the Gulf coast of Florida at Dickerson Bay at depths of 2 to 5 m. Howard and Dörjes (1972) claim to have taken the species in the tidal flats at Sapelo Island. The range is here extended to Bermuda at a depth of 90 m.

Remarks.—The species as redescribed here and by Kruczynski and Myers (1976) has no endite on the maxilliped (p. 355, Fig. 1I), but what might be one is shown by Menzies and Frankenberg (1966:83, Fig. 17G). Barnard (1925:112, Fig. 1H) illustrated a maxilliped without an endite for the genus. The species as illustrated here has more flagellar articles on the antennae than is shown by Kruczynski and Myers. The flagella are more like those shown by Menzies and Frankenberg.

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